I. PRELIMINARY AMENDMENT OF THE CLAIMS

Please enter the following amendment prior to substantive examination.

1-15. (Canceled)

16. (Withdrawn) A method of treating malignancies, pre-malignant conditions, and pathologic conditions in a subject which are characterized by the activated form of matriptase comprising administering a therapeutically effective amount of an agent capable of blocking the activity of active matriptase.

17. (Withdrawn) The method of Claim 16, wherein the malignancy and pre-malignant condition is a condition of the breast.

18. (Withdrawn) The method of Claim 16, wherein the condition involves tissue remodeling; inflammatory responses, smooth muscle cell proliferation; cancer invasion or metastasis.

19. (Withdrawn) The method of Claim 16, wherein the pre-malignant lesion is selected from the group consisting of: atypical ductal hyperplasia of the breast, actinic keratosis (AK), leukoplakia, Barrett's epiethlium (columnar metaplasia) of the esophagus, ulcerative colitis, adenomatous colorectal polyps, erythroplasia of Queyrat, Bowen's disease, bowenoid papulosis, vulvar intraepithelial neoplasia (VIN), and displastic changes to the cervix.

20. (Withdrawn) The method of Claim 16, wherein the matriptase inhibiting agent is an antibody.

21. (Withdrawn) The method of Claim 20, wherein the antibody is selected from M69 and M123.

22. (Withdrawn) The method of Claim 16, wherein the malignancy, pre-malignant condition, or other pathologic condition, is in epithelial tissue or in a matriptase expressing tissue.

23. (Withdrawn) The method of Claim 16, wherein the agent is capable of blocking the activation of matriptase by blocking the activity of an agent capable of inducing the activation of matriptase.

24. (Withdrawn) The method of Claim 23, weherein the agent capable of inducing the activation of matriptase is compound comprising a lipid moiety.

25. (Withdrawn) The method of Claim 23, wherein the agent capable of inducing activation of matriptase comprises a lipoprotein.

26. (Withdrawn) The method of Claim 23, wherein the agent capable of inducing activation of matriptase comprises lysophosphartidic acid (LPA) or shingosine 1-phosphate (S1P).

27-33. (Canceled)

34. (New) A method of treating a pre-malignant lesion or a malignant cancer in a subject, wherein the pre-malignant lesion or malignant cancer are characterized by the presence of activated matriptase, the method comprising:

(a) obtaining a biological sample from a subject;

(b) exposing the biological sample to a detectable agent that recognizes and binds to activated matriptase;

(c) detecting activated matriptase that is bound to the detectable agent in the biological sample; and

(d) administering to the subject an agent that blocks the activity of active matriptase.

35. (New) The method of claim 34, wherein the matriptase that characterizes the pre-malignant lesion or malignant cancer is produced by cells of an epithelial tissue.

36. (New) The method of claim 34, wherein the pre-malignant lesion or malignant cancer are present in a breast of the subject.

37. (New) The method of claim 34, wherein the pre-malignant lesion is atypical ductal hyperplasia of the breast and involves tissue remodeling.

38. (New) The method of claim 34, wherein the detectable agent is an antibody.

39. (New) The method of claim 38, wherein the antibody binds specifically to activated matriptase, but not inactive matriptase.

40. (New) The method of claim 39, wherein the antibody binds specifically to an activated two-chain form of matriptase, but not to inactive, single-chain matriptase.

41. (New) The method of claim 40, wherein the antibody is selected from M69 and M123.

42. (New) The method of claim 38, wherein the antibody is labeled with a detectable label.

43. (New) The method of claim 42, wherein the antibody is labeled with a radioisotope or a fluorescent label.

44. (New) The method of claim 43, wherein the antibody is labeled with a radioisotope selected from the group consisting of ^{62}Cu, ^{99}Te, ^{131}I, ^{123}I, ^{111}In, ^{90}Y, ^{188}Re, and ^{186}Re.

45. (New) The method of claim 34, further comprising exposing the biological sample to one or more antibodies that recognize inactivated matriptase, and determining the ratio of the amount of antibodies that are specifically bound to activated matriptase to the total amount of antibodies that are bound to matriptase.

46. (New) The method of claim 45, wherein the antibody that recognizes inactivated matriptase is M32.

47. (New) The method of claim 34, further comprising detecting the presence and or measuring the concentration in the biological sample of matriptase cognate inhibitor HAI-1 (M58)

48. (New) The method of claim 34, wherein the biological sample is obtained by biopsy, nipple aspirate, or removal of body fluid that has come into contact with cells of a pre-malignant lesion or a malignant cancer of the subject.

49. (New) The method of claim 34, wherein the agent that blocks the activity of active matriptase binds specifically to and directly blocks the activity of activated matriptase.

50. (New) The method of claim 49, wherein the agent that blocks the activity of active matriptase is an antibody.